

REMARKS

The foregoing amendment amends claims 2 and 4 for purposes of clarity only. Pending in the application are claims 1-25, of which claims 1, 8, 15 and 22 are independent. The following comments address all stated grounds for rejection and place the presently pending claims, as identified above, in condition for allowance.

Claims 2 and 4 are amended to clarify the first piston area, the second piston area, the fourth piston area and the fifth piston area as separate elements. *No new matter is added.*

Claim Rejections Under 35 USC § 112

Regarding the objection to claim 4 for lacking antecedent basis for the recitations of a “first piston area” and “fourth piston area” in lines 1-3, Applicant submits that claim 3, from which claim 4 depends, provides antecedent basis for the recitation “fourth piston area” in line 4. Claim 2, from which claim 4 ultimately depends, provides antecedent basis for the “first piston area” in lines 2-3. Therefore the rejection under 35 U.S.C. § 112 should be reconsidered and withdrawn.

Claim Rejections Under 35 USC § 102

Applicant thanks the Examiner for the close review of the claims and for indicating that claims 2-3 recite patentable subject matter and that claims 8-25 are allowed. In the Office Action, the Examiner maintains and finalizes the rejection of claims 1 and 4-7 under 35 U.S.C. 102(b) as being anticipated by Rockwood, US No. 5,494,299 (“Rockwood”). According to the Examiner, the component designated by reference number 256 is a “single rotatable seal ring...having a pair of concentric seal faces...and an axially extending passage”, and therefore the Rockwood reference anticipates claim 1.

According to the Examiner, because the cross-hatching on elements 244 and 258 is similar, the elements 244 and 258 comprise integral parts of a single element 256. The Examiner is incorrect. The specification of the Rockwood reference clearly describes nose portions 244 and 258, which form seal faces, as components of separate and distinct seal rings 212 and 214, respectively. Each seal ring 212, 214 in Rockwood includes a single seal face,

rather than a pair of seal faces, and does not include the claimed axially extending passage extending through the seal ring.

Applicant directs the Examiner's attention to column 11, line 56 through column 12, line 25 and column 13, lines 29-30, particularly **column 11, lines 56-58 and column 12, lines 17-24**. As clearly set forth, the Rockwood quad-seal 114 includes two *separate* stationary engaging members: outer stationary engaging member 212 and inner stationary engaging member 214. The inner stationary engaging member 214 comprises two separate elements: a block portion 256 and a nose portion 258 extending outward from the block portion 256, while the outer stationary engaging member 212 also comprises two separate elements: block portion 246 and nose portion 244 extending outward from the block portion 246. Therefore, component 256, which the Examiner considers to be a single rotatable seal ring with multiple seal faces, in fact refers to the **block portion** (i.e., the body or non-seal face portion) of the stationary engaging member 214, as clearly set forth on column 12, line 23-24. Thus, component 256 is merely a *portion* of a single seal ring 214 having a single seal face 258, and does **not** correspond to the claimed rotary seal ring. The block portion 256 is in fact separate from the nose portion 244 on the separate and distinct engaging member 212 and thus does not include a pair of concentric faces, as recited in claim 1 and as alleged by the Examiner.

Furthermore, column 13, lines 29-30 specify that the chamber 234 is disposed between the stationary engaging members 212 and 214, further evidencing that the engaging members 212, 214 are separate, distinct components, each with a single seal face.

Moreover, even if the component 256 *were* a single seal ring with multiple seal faces and an axially extending passage, the component 256 is stationary and not able to rotate, as required by claim 1. The specification clearly describes the seal rings 212, 214, including component 256 as stationary, while components 208, 210, which the Examiner considers to be stationary, are actually rotary, as set forth in column 11, lines 35-52.

In addition, the similarity of the direction of the cross-hatching does not signify that elements with similar cross-hatching are integral. For example, sealing members 208 and 210 have similar cross-hatching, but are clearly separate, distinct components. (See column 11, lines

46-47). Therefore, the fact that nose portion 244 has cross-hatching extending in the same direction as cross-hatching on the nose portion 258 does not mean that both are part of the same component.

In addition, the Rockwood reference does not teach or suggest that barrier fluid can be used for pressure balance control, as described in the present application. For at least the foregoing reasons, the seal of Rockwood does not disclose all of the elements of claim 1, and the rejection of claims 1 and 4-7 should be reconsidered and withdrawn.


CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this statement. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. CTH-302A from which the undersigned is authorized to draw.

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Respectfully submitted,

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